Report
Yosemite National Park

1.0 Site Description

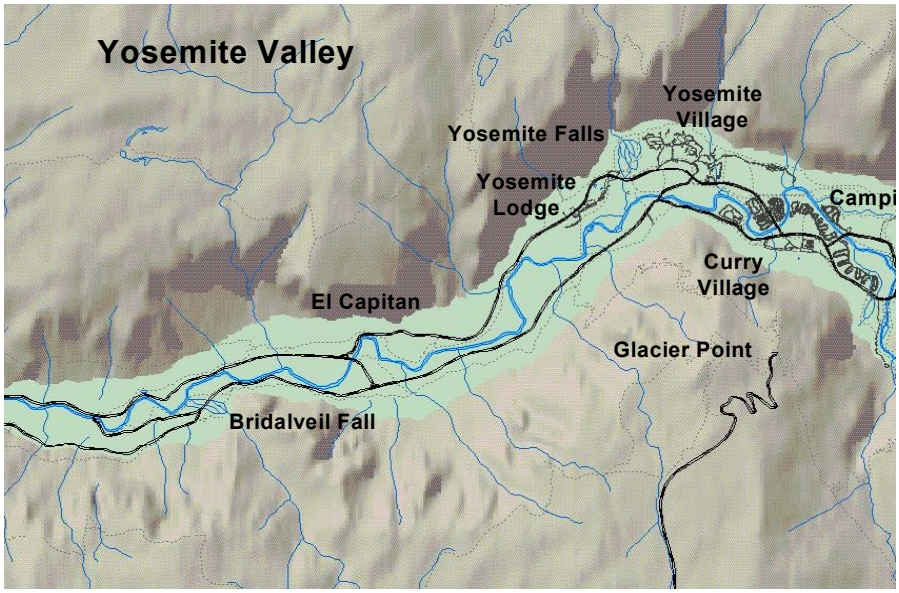
Yosemite National Park is located in the Sierra Nevada Mountain Range in California, approximately four hours driving time east of San Francisco and six hours driving time north of the Los Angeles metropolitan area. The park covers 1,170 square miles, of which 95 percent is wilderness (see Figure 1). In 1864, the federal government granted Yosemite Valley and the Mariposa Grove of giant sequoia trees to the state of California for protection as a public recreation area. The Yosemite grant is considered a foundation for the later development of national parks and, as a result Yosemite National Park holds high significance in the history of the national park movement. Yosemite was designated as a national park in 1890.

Figure 1. Map of Yosemite National Park

Visitor use is concentrated in the following areas:

- **Yosemite Valley –** The Valley, which attracts 70 percent of park visitors, is seven miles long and about one mile wide (see Figure 2). It is the location of many of the icons of the park and contains many of the park's visitor services, including most of the lodging units. Yosemite Valley is characterized by it's flat floor, vast granite cliffs rising 3,000 feet, spectacular waterfalls, and the Merced River and its associated meadows. The valley is centrally located in the park on the west side of the Sierras. Three travel routes lead to the valley from the west, the south and the north. Most people traveling through the park from one entrance to another must pass through Yosemite Valley.

Figure 2. Map of Yosemite Valley



- **Mariposa Grove –** This grove of giant sequoia trees is located near the south entrance to the park. It is served by a moderate-sized parking lot at the end of a short access road and a small concession outlet. Open-air trams provide tours of the grove during the summer. Nearby Wawona provides lodging, a campground, a store and other visitor services.

- **Glacier Point –** This area provides dramatic views of Yosemite Valley and the surrounding cliffs and granite domes from 3,000 feet above the valley floor. It is reached by a dead-end road that connects to the primary park road leading from the south entrance to Yosemite Valley. A parking area at the end of the road and a concession facility serve visitors to Glacier Point.

- **Tuolumne Meadows –** This subalpine meadow area along the upper reaches of the Tuolumne River is a popular location for hiking and other wilderness-oriented activities. A small lodge, campground, Visitor Center and concession outlet serve visitors to this area and people making trips across the Sierra via California Highway 120.

Lower concentrations of visitor use occur along the park's road system, which covers about 200 miles.

The park has four major entrance stations. Three stations serve travelers approaching the park from the west, including the Big Oak Flat entrance on Highway 120, the Arch Rock Entrance on Highway 140, and the South Entrance on Highway 41. The Tioga Pass entrance on Highway 120 serves visitors approaching from the east.

About four million people visit Yosemite each year. Visitation has doubled since 1980. The peak visitation months are July and August, with visitation reaching its peak on weekends during the summer. Many visitors to the park enter and leave on the same day. A significant share of these visitors spend the night in lodging or camping sites in the Yosemite region. Visitation growth has led to recurring problems with insufficient parking, high traffic volumes, and resource impacts associated with vehicular travel and parking.

2.0 Existing ATS

A wide range of Alternative Transportation Systems (ATS) is provided to and within Yosemite. Regularly-scheduled transit service is operated year-round along Highway 140 from the west, connecting to Amtrak service through the San Joaquin Valley in Merced, California. In the summer, a single daily bus trip is operated from Fresno to the park along Highway 41. Commercial tour buses also serve the park, accommodating about 14 percent of the visitors to Yosemite Valley. The park's concessioner, Yosemite Concession Services (YCS), operates shuttle service from employee housing areas outside the park into Yosemite Valley.

Within the park, visitors have the option to use free shuttle services in three of the highest use areas and a variety of tours operated by the concessioner for a fee to the user. In Yosemite Valley, a fleet of 10 standard urban transit coaches and several experimental electric vehicles provide shuttle service along an eight-mile loop in the east end of Yosemite Valley. During the summer, the buses provide service every six to 10 minutes. In the winter, the service is operated every 20 minutes. Ridership on the route can reach 30,000 passenger boardings per day, and the vehicles are chronically overcrowded. The buses are owned by the NPS and operated and maintained by YCS.

YCS offers tours of the Valley on open-air trams in the summer and in enclosed buses in the winter. Several tours with larger itineraries are based in Yosemite Valley, catering to the overnight guests in concession lodging.

Shuttle service is operated from May to October from Wawona to the Mariposa Grove when the grove parking area is filled. Up to three buses leased by the concessioner provide service along a route that takes about 60 minutes per round trip. Visitors attempting to visit the grove are directed to overflow parking near the store in Wawona. Shuttle service also is operated in the Tuolumne Meadows area in the summer. Service is operated along the Tioga Pass road, with stops at the major trailheads and visitor facilities. A problem with this service is that there is no convenient parking area of adequate size for

use by day visitors to the area who want to use the shuttle. This shuttle connects with a hiker tour bus that travels from Yosemite Valley to the Tuolumne Meadows area.

The Yosemite Area Regional Transportation System (YARTS) is a Joint Powers Authority of the counties of Merced, Mariposa and Mono, which are adjacent to the park. YARTS plans to initiate a demonstration of expanded public transportation service to Yosemite Valley from the Highway 140 corridor, the Highway 120 corridor east of the park and Wawona south of the valley. The service will include one trip per day from 120 East and Wawona and several trips along the Highway 140 corridor to the west of the park. If successful, the demonstration service could be expanded to provide more trips in the corridors where demand warrants.

3.0 ATS Needs

Yosemite National Park is completing a comprehensive plan to implement the park's General Management Plan in Yosemite Valley. Two goals of the General Management Plan are to markedly reduce traffic congestion and to reduce crowding. These problems are especially severe in Yosemite Valley. The Yosemite Valley Plan is considering transportation improvements which include improvements to shuttle service in the Valley, the potential to provide parking at remote sites with shuttle service into the Valley and improved facilities for tour buses and regional transit service.

In addition to the long-term improvements to be included in the Yosemite Valley Plan, the park has identified short-term improvements that need to be implemented within the next one to five years.

Short-term ATS needs identified include:

- Replacement of the existing 10-bus fleet of valley shuttles with either larger vehicles with higher capacity or more vehicles, or both;
- Modifications to shuttle service in Yosemite Valley to better meet visitor needs;
- Modifications to shuttle stops and improved visitor information regarding the shuttle service in Yosemite Valley;
- Provision of improved bus stops for use by YARTS buses in Yosemite Valley; and
- Improved visitor information, parking facilities, and modifications to schedules for the Tuolumne Meadows shuttle.

Long-term ATS needs will be determined upon completion of the Yosemite Valley Plan and planning for improvements at the South Entrance, which could affect shuttle service to Mariposa Grove.

4.0 Basis of ATS Needs

Transit facilities and services have not been expanded to the degree necessary to keep up with increased emend from growing visitation. The shuttle service in Yosemite Valley has remained relatively unchanged since the current fleet of buses was purchased in the early 1980s. Shuttle services have been implemented to Mariposa Grove and in Tuolumne Meadows in response to identified problems without the benefit of parking and transfer facilities designed to accommodate the needs of visitors. While these shuttle systems have been effective, growing demand has outstripped the capacity of the available informal facilities. Long-term comprehensive planning projects are defining transportation solutions that will improve the visitor experience while protecting Yosemite's priceless resources. While long-term plans are being finalized, immediate needs must be addressed.

The buses used to operate the Yosemite Valley shuttle system were purchased in the early 1980s and are beyond their useful life. Frequent breakdowns interrupt service and result in high maintenance costs. Even with the full fleet in operation, passenger demands exceed the comfortable capacity of the buses. Well more than 80 passengers are regularly crowded onto buses that were designed to accommodate about 60 people, at most.

Shuttle service is restricted to the east end of Yosemite Valley. Traffic and parking problems in the western portion of the Valley could be reduced by providing shuttle service in this area. In the long term, problems with parking demand that exceeds the supply of parking in the Valley could be addressed by providing shuttle service from remote parking areas.

The Tuolumne Meadows shuttle is serving some transportation needs in the area, but day-users have difficulty finding parking. Without adequate, convenient parking, many visitors find it easier to drive their cars and attempt to park near the areas they plan to visit than to park and ride the shuttles. As a result the shuttle system is less effective than it could be in reducing impacts from congestion and inappropriate overflow parking.